North Carolina College of Agriculture and Mechanic Arts, for the year 1909–10: Dr. L. F. Williams promoted from an instructorship to an assistant professorship; Burton J. Ray, A.B. (Wake Forest, Ph.D., Cornell), instructor in organic chemistry and assistant chemist in the Experiment Station; Frank W. Sherwood, B.S. (North Carolina A. & M.), assistant chemist in the Experiment Station.

REGINALD E. HORE, of Toronto, formerly instructor in the University of Michigan and in Queens University, has been appointed instructor in petrography in the Michigan College of Mines, Houghton.

DR. E. B. HUTCHINS, Ph.D. (Wisconsin), has resigned the professorship of chemistry at Carroll College to accept the position of manager of a manufacturing establishment in Fond du Lac, Wis. S. B. Hopkins, Ph.D. (Johns Hopkins), has been elected to the position at Carroll College.

DR. A. H. GIBSON has been elected professor of engineering at University College, Dundee, to succeed Professor Fidler, who has resigned.

PROFESSOR H. KOSSEL, director of the hygienic institute at Giessen, has received a call to Heidelberg. His brother, Dr. A. Kossel, is professor of physiology at Heidelberg.

DR. F. HARTMANN, of the Astrophysical Observatory at Pottsdam, has been appointed professor of astronomy at Göttingen and director of the observatory.

DISCUSSION AND CORRESPONDENCE

NATURE STUDY

TO THE EDITOR OF SCIENCE: In the advertisement of a new book on "Nature Study" I find the following statement:

> There is a great deal of talk about nature study by persons who have only the haziest idea of what they mean by it.

With this I am in cordial agreement. Why the term "nature study" should be appropriated as applying to that partial range of the phenomena of the physical universe which is the particular province of the biologist I have never been able to see. I believe that the word φύσις is the equivalent of the Latin *natura,* for which the English is *nature.* The derivation of the word physics is apparent. The old term "natural philosophy" is an excellent one, sanctioned by the best use from Newton to Thomson and Tait, and serving as a contrast to "natural history" or the purely descriptive part of that science of nature which does without philosophy. The term physics is shorter and belongs to other languages than English, and it seems to me that if the biologists desire a correspondingly convenient term it is for them to invent one, and not to preempt the whole of nature, which is greater than any part.

ARTHUR GORDON WEBSTER

NEON AND ELECTRIC WAVES

TO THE EDITOR OF SCIENCE: Professor J. Norman Collie, F.R.S., recently discovered that when perfectly pure neon is enclosed in a glass tube with a globule of mercury and shaken, it glows with a bright orange-red color, and when the globule rolls it appears to be followed by a flame. This phenomenon takes place at ordinary pressure.

Sir William Ramsay has found that neon is the best conducting of the gases and that it readily becomes luminous under the influence of electric waves. Professor J. A. Fleming, F.R.S., uses a neon tube as a detector for the wave-length of Hertzian waves in his apparatus for measuring them.

During a recent visit to Sir William Ramsay I had the pleasure of seeing the astonishing quantity of over 500 c.c. of pure neon which he had obtained from about 120 tons of air. While there, Professor Collie very kindly presented to me a tube of neon, under about one half an atmosphere pressure, containing a globule of mercury which showed the "Collie effect" very strikingly.

Returning from Liverpool, July 2, on the steamer *Baltic,* I was given opportunity during the voyage, by Mr. Bates, the chief operator of the wireless, to try the neon tube as an instrument for the visual reading of the wireless message. We experimented with it during two nights and found that the neon glowed beautifully in response to the waves sent out,

but the waves as received were too weak to visibly affect the neon, although we tried every arrangement of the limited apparatus at our command. The electric wave sent out by the *Baltic's* apparatus was, according to Mr. Bates about 800 feet long.

Wm. L. Dudley
Vanderbilt University

Fundulus luciæ again in New Jersey

On July 28, 1909, I secured a single small example of this species in a little inlet, which empties into Barnegat Bay several miles below Seaside Park, on Island Beach in Ocean County. The inlet was well choked up with grass, so that the water was perfectly still and formed a little brackish pond. Only multitudes of *Cyprinodon variegatus* and many young *Fundulus majalis* were found associated. I mention this record simply as it is the most northern at which *Fundulus luciæ* is known to occur.

Henry W. Fowler
Academy of Natural Sciences,
Philadelphia, Pa.

The Burden of Nomenclature

The scientific white man's burden is largely one of names and no one knows better than the zoologist how great the incubus has become. Names in boundless profusion are heaped upon him—many of them needless synonyms—and, worst of all, no two zoologists can agree upon any one particular name for any one particular genus or species. The efforts of individuals, of committees and of conventions to enforce agreement according to rule have failed and it is not surprising that widespread disgust prevails because of the nomenclatural confusion which exists. No code of rules yet devised for the purpose of fixing a single name on each entity has proved adequate to check the changes which go merrily on year after year. In fact zoological nomenclature to-day seems to be little more than an intricate game of names, fascinating sport for its faithful devotees, but an intolerable nuisance for the uninitiated many! A few specialists interested in the game have made all the rules and done all the playing, and they are directly responsible for the changes. Nothing has been let alone long enough to become stable, not even the codes.

One of the principal reasons why codes fail is because individual opinion interprets them. Conventions bark up the wrong tree—it is not rules for "eliminating" genera that are needed so much as rules for eliminating individual opinion. The zoologist consumer would seem to be in the clutches of a word-trust that furnishes him not with what he needs but with what he can get according to canon X, Y or Z; and we all know what a fertile field for the exploitation of rules and canons ornithology has been. In the latest code of nomenclature—that published by the American Ornithologists' Union in July, 1908—the same ponderous machinery constructed in 1842 is made to do duty. The wheels and cogs have been repaired and repolished several times during the intervening years but as a machine for grinding out stable names it has proved signally inadequate. A check-list of North American birds issued in 1886 has already been revised and corrected, according to code, in no less than fifteen supplements and the end is not in sight. This is but a sample of the instability to be found in all branches of zoology.

Now, as a matter of fact, unpractical zoologists have long put up with a nuisance that business men would not have tolerated a moment. Practical business men settled telegraphic nomenclature, for instance, by publishing a code of over a thousand million pronounceable words with at least two letters difference between them, and surely zoological nomenclature, with but a small fraction of that number of names, should not be a hopeless proposition. We all know how many things are standardized—even the languages of France and of Spain. If a national academy sets the standard for language, are zoologists unable to establish a standard for zoological language by an international academy of their own? Something of this sort is urgently needed, for nomenclature is an art and not a science. Codes do not evolve but are made for convenience and we should quit bowing down to precedent and burning incense before the shrine of priority if we seek stability. Priority is rather a bog from which